

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2132904****Date: 09/06/2017****Subject Name: Textile Processing - I****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		<b>MARKS</b>
<b>Q.1</b>	<b>Short Questions</b>	<b>14</b>
	1 Enlist the different types of singeing machines.	
	2 Enlist the methods of desizing.	
	3 What is singeing?	
	4 Enlist the types of Kiers used for scouring process.	
	5 What are the objectives of scouring?	
	6 Define the term “Saponification”.	
	7 Enlist the different ways of scouring cotton fabric.	
	8 What is a Surfactant?	
	9 State the objectives of bleaching of cotton fiber?	
	10 What is mercerizing?	
	11 What is dyeing?	
	12 Name the two classes of water insoluble dyes.	
	13 What is HTHP dyeing?	
	14 Define the term “Affinity”.	
<b>Q.2</b>	(a) Discussed the advantages and disadvantages of Gas singeing machine.	<b>03</b>
	(b) Explain the working of gas singeing machine with neat sketch.	<b>04</b>
	(c) Describe the construction and working of a vertical kier.	<b>07</b>
	<b>OR</b>	
	(c) Write a note on Dyeing of Polyester/ Cotton blend.	<b>07</b>
<b>Q.3</b>	(a) Explain the objectives of desizing.	<b>03</b>
	(b) Discuss the process of rot steeping desizing.	<b>04</b>
	(c) Explain the scouring and bleaching of coloured woven goods.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain the precautions to be taken during hypochlorite bleaching.	<b>03</b>
	(b) State the advantages of peroxide bleaching.	<b>04</b>
	(c) Discuss the process hydrogen peroxide bleaching with its recipe and process parameters.	<b>07</b>
<b>Q.4</b>	(a) Give the classification of coloring matter.	<b>03</b>
	(b) Explain the objectives of a dyeing department.	<b>04</b>
	(c) Describe jigger dyeing machine with a neat sketch.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) What are reactive dyes?	<b>03</b>
	(b) Describe the method for application of hot brand reactive dyes on cotton.	<b>04</b>
	(c) Explain the chainless padless mercerising machine with a neat sketch.	<b>07</b>
<b>Q.5</b>	(a) Give the advantages of dyeing loose cotton.	<b>03</b>
	(b) Describe the process of dyeing Polyester fabrics by carrier dyeing.	<b>04</b>
	(c) Explain the beam dyeing machine with a neat sketch.	<b>07</b>
	<b>OR</b>	

- Q.5** (a) Explain the following terms : **03**  
1. M.L.R 2. Shade percentage
- (b) Explain the following terms : **04**  
1. Concentration and exhaustion of a dyeing bath.  
2. Cross dyeing and Topping
- (c) Describe the process of dyeing cotton fabrics with direct dyes. **07**

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